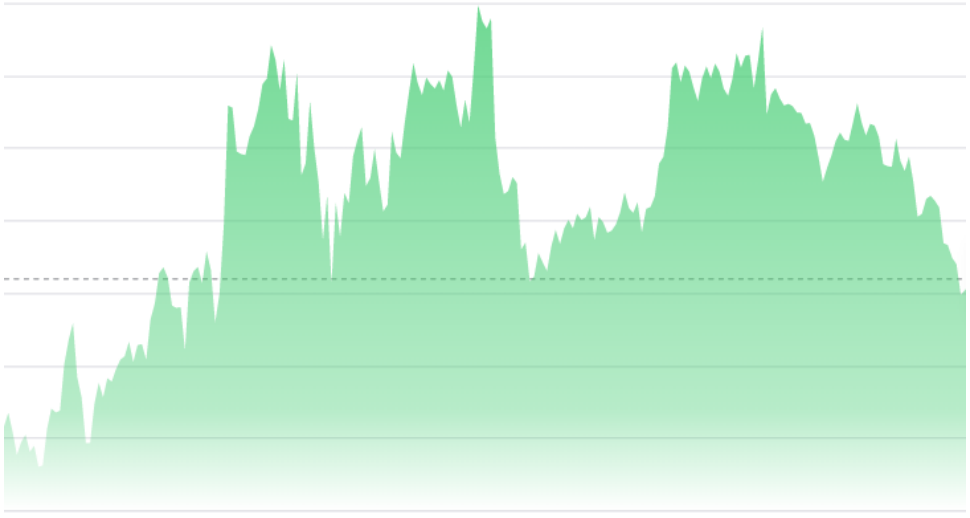
# HASHEQUITY

A SECURITY TOKEN & MARKETPLACE APPLICATION FOR ENTERPRISE

UTILIZING HEDERA HASHGRAPH DISTRIBUTED LEDGER TECHNOLOGY



# TABLE OF CONTENTS



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# INTRODUCTION

This whitepaper introduces HashEquity: a new security token type and distributed application (“dApp”) under development that resides on the Hedera public ledger and replaces the traditional utility of owning company stock. This project aims to tokenize enterprise equity in the form of security tokens. A HashEquity token (e.g. "IBM.HE", “MSFT.HE”) imputes enterprise ownership, distributes dividends, and manages voting rights. These tokenized shares can be traded on a self-administered enterprise exchange or through other popular exchanges. This dApp will be a critical enterprise tool to raise capital without the overhead of traditional 3rd party exchanges and brokerages. Utilizing the Hedera distributed ledger, HashEquity tokens will leverage much faster transaction and settlement time, ABFT security, designed for SEC compliance and transparency, offering 24/7 liquidity at a fraction of the cost of traditional exchanges and brokerages. It will also provide a self-administrated enterprise trading platform to provide services such as token sale, buy-back, and fully-functional bridging to DEX for hosting via the Hedera network.


# OVERVIEW

Enterprises today issue their primary means of ownership in the form of common and preferred stock, or shareholder certificates. Billions of company shares are transferred daily on public centralized exchanges such as NASDAQ and the New York Stock Exchange. Most retail investors also employ 3rd party custodial brokerage services to act as proxy for holding and trading their shares. This model exhibits multiple 3rd parties between shareholder and enterprise, slow transaction settlement time (days), limited liquidity, poor transparency, and significant cost and energy consumption due to overhead. The future landscape of finance will evolve from this archaic brokerage/exchange services model to a decentralized, tokenized enterprise security, operating on a secured, trusted, transparent and fast (seconds) distributed ledger. HashEquity security tokens on the Hedera network embody this new paradigm of decentralized finance for enterprise ownership. With widescale adoption, equity tokens will eventually eclipse utility tokens in the blockchain landscape in value.

- Greater Liquidity
  24/7 exchange, global accessibility
- Transparency
  Rights, ownership details, transactions are embedded in the token itself and stored on the public ledger
- Affordability
  Fewer intermediaries and less overhead
- Regulatory Compliance
  Built-in safeguards and process to ensure SEC approval and cooperation

The Hedera DLT network demonstrates an overwhelming and sustained capability for fast transaction ordering, predictable and low-cost fee structure, ABFT fault tolerance, and transaction finality in seconds. This makes it a compelling choice as the layer-1 protocol on which to build a new ecosystem of public and private shareholder tokens. This is imperative given the massive use case DeFi applications represents for even partial or limited adoption. For example, even an individual large-cap enterprise trading volume exceeds a million shares per day on centralized exchanges. The Hedera network can carry out all these operations without incurring the cost and time of intermediaries such as banks, brokers or escrow agents. The patented Hedera Hashgraph algorithm confirms transactions in 3-5 seconds, at up to 10,000+ transactions per second ("TPS"), and charges infinitesimally small fees as low as $0.0001 USD for network usage.

Many security tokens require regulation, including public enterprises. HashEquity will provide companies with increased, frictionless, and self-directed liquidity and transparency through SEC compliant tokens. Governance is managed for this token by the board of directors, just as would company stock, with approval and oversight of the SEC.

Using the HashEquity dApp, enterprises will have the tools to mint, release, and sell their own unique token to raise capital and unlock trading of their security on a worldwide platform with global exposure and liquidity. This capital can be converted to fiat currency and allow a company to carry on and grow their business. The goal is that an enterprise accomplishes this with full transparency and in compliance

with SEC oversight and approval, at a fraction of the cost of utilizing existing exchange and proxy brokerage services.

Equity trading using tokenized ownership can be executed direct to consumer through the dApp's self-service enterprise order book utilizing smart contracts. Additionally, an enterprise HashEquity token order book will have the capability to bridge between existing decentralized exchanges ("DEXs") such as Coinbase, Bittrex, Binance, Kraken, or Bitstamp. This will vastly improve enterprise reach and liquidity.

Services provided for the enterprise use case will include the following actions:

- Mint customized Enterprise HashEquity security (e.g. "IBM_HE", "MSFT_HE", "GOOGL_HE")
- Increase supply through release and sale of HashEquity tokenized securities
- Decrease supply through buy-back and burn of HashEquity tokenized securities
- Determine voting rights and execute voting decisions via Smart Contract
- Operate decentralized self-administered order-book/exchange services
- Bridge and list enterprise HashEquity tokenized securities to public DEXs
- Token-holder Report generation
- Share and distribute enterprise profits as dividend payments in the form of token-holder rewards, such as HashEquity or USDC transfer

This can be done most efficiently, securely, with built-in transparency and compliance, and at the lowest cost, using a distributed ledger. This framework will utilize Hedera Consensus and Token services.

# DEPLOYMENT MODEL

## Application Architecture

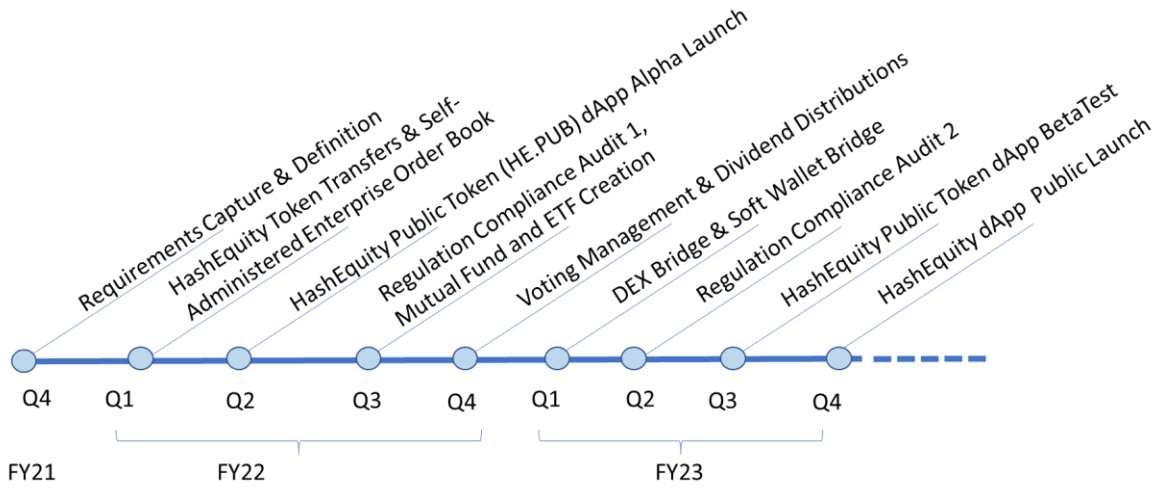
The application will be deployed as a cross-platform desktop Electron application and web app. The design utilizes Hedera's JavaScript SDK.

## Hedera Service

The application uses Hedera Token Service to deploy HashEquity tokens on the Hedera Public Ledger. Future application features will take advantage of Hedera's Consensus service to build privately held tokenized equity.

| | HEDERA TOKEN SERVICE<br>Tokens natively on Hedera | HEDERA CONSENSUS SERVICE<br>Tokens on a permissioned network with public trust |
|---|---|---|
| STORAGE | Hedera public ledger | Permissioned blockchain or database |
| PRIVACY | Pseudonymous | Public or encrypted |
| GOVERNANCE | Hedera Governing Council | Custom |
| CUSTOMIZATION | Limited | Customizable logic and roles |

# ROADMAP


Requirements Capture & Definition
HashEquity Token Transfers & Self-Administered Enterprise Order Book
HashEquity Public Token (HE.PUB) dApp Alpha Launch
Regulation Compliance Audit 1, Mutual Fund and ETF Creation
Voting Management & Dividend Distributions
DEX Bridge & Soft Wallet Bridge
Regulation Compliance Audit 2
HashEquity Public Token dApp BetaTest
HashEquity dApp Public Launch
Q4
Q1
Q2
Q3
Q4
Q1
Q2
Q3
Q4
FY21
FY22
FY23

# ABOUT US

**Curtis Mayberry**

Curtis is an electrical and software engineer developing enterprise applications for both crypto equity applications and electronic design automation. He's fluent in Python, Javascript, C, and MATLAB.

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Jonathan is an engineering project manager with Skyworks developing radio frequency power amplifier module chipsets supporting 5G, IoT and mobile handset product development. With over 15 years of experience in product development, including requirements capture, resource planning, engineering design and production ramp. Jonathan also has 20+ years invested in personal portfolio management, brokerage tools UI, and a history of giving (and taking) questionable financial advice. He has diverse enterprise and academic experience drawn from Rockwell Collins, Skyworks Solutions, Micrel Semiconductor and teaching and research assistantships at Iowa State University.